

US-PAT-NO: 5467412

DOCUMENT-IDENTIFIER: US 5467412 A

TITLE: Correcting digitized signals  
to achieve specified output  
results for an image

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382/254

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PARENT-CASE:

This is a continuation of application Ser. No.  
07/846,675 filed Mar. 5,  
1992, now abandoned.

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Detailed Description Text - DETX (42):

Referring now to FIG. 5 and Appendices A and B,  
various diagrams  
illustrating application of the present invention  
to color correction in an  
exemplary film to video conversion digital image  
processing system are shown.  
The overall operations and processing flow of an  
exemplary color corrector in

the exemplary film to video conversion digital image processing system are shown in FIG. 5. The digitized Red, Blue, and Green input signals (r.sub.in, b.sub.in, g.sub.in) received from the image sampling subsystem first go through gain and offset adjustments, blocks 72a-72c. The adjusted digitized Red, Blue, and Green signals (r.sub.in, b.sub.in, g.sub.in) then go through a series of film related transforms, logarithmic, interimage masking, film characteristic gamma, and exponentiation, blocks 74-80. The film **transformed** digitized Red, Blue, and Green signals (r.sub.in, b.sub.in, g.sub.in) then go through a series of display related **transforms**, video **cross-talk**, display gamma and artistic, blocks 82-86, to generate the corrected digitized Red, Blue, and Green output signals (r.sub.out, b.sub.out, g.sub.out).

Detailed Description Text - DETX (46):

The direct formulation of the colorimetric **transform** function is illustrated in Appendix A. The computation of the partial derivatives with respect to the video **cross-talk** parameters, the film domain characteristic parameters, the film inter-image masking parameters, and the input gain and offsets parameters required for computing the video **cross-talk** parameter changes, the film domain characteristic parameter changes, the inter-image masking parameter changes and the gain and offset parameter changes are illustrated in Appendix B.

Claims Text - CLTX (13):

7. The method as set forth in claim 2, wherein, said processing parameters are video cross-talk parameters, said color corrector performing video cross-talk transforms on said digitized color signals.

Claims Text - CLTX (27):

16. The digital image processing system as set forth in claim 11, wherein, said processing parameters are video cross-talk parameters, said color corrector performing video cross-talk transforms on said digitized color signals.

Current US Cross Reference Classification - CCXR  
(1):

348/97